

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	I	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,993	0/752,993 01/08/2004		Setsuo Nakajima	740756-2683	6484
22204	7590	08/28/2006		EXAMINER	
NIXON PE		•	RAO, SHRINIVAS H		
401 9TH STREET, NW SUITE 900			ART UNIT	PAPER NUMBER	
WASHING	ron, do	20004-2128	2814		
				DATE MAILED: 08/28/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

3/

	Application No.	Applicant(s)					
	10/752,993	NAKAJIMA, SETSUO					
Office Action Summary	Examiner	Art Unit					
	Steven H. Rao	2814					
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
1) Responsive to communication(s) filed on 08 Ju	ne 2006						
	action is non-final.						
3) Since this application is in condition for allowan		secution as to the merits is					
closed in accordance with the practice under E.	•						
·	A parto quajio, 1000 O.B. 11, 40	0.0.210.					
Disposition of Claims							
4) Claim(s) <u>1-4,6-10,12-16,18-22,24-28,30-34 and 36</u> is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6) Claim(s) <u>1-4,6-10,12-16,18-22,24-28,30-34 and 36</u> is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/or	election requirement.						
Application Papers							
9) The specification is objected to by the Examine	r.						
10) The drawing(s) filed on is/are: a) acce		Examiner.					
Applicant may not request that any objection to the							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of the priorical statement. 	s have been received. s have been received in Application ity documents have been received (PCT Rule 17.2(a)).	on No ed in this National Stage					
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 66 08	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:						

DETAILED ACTION

Priority

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on June 08, 2006 has been entered.

Preliminary Amendment

Applicants' amendment filed on June 08, 2006 has been entered and forwarded to the examiner on June 14, 2006.

Therefore claims 1-4,7-10,13-16,19-22,25-28 and 31-34 as amended by the amendment and claims 6, 12,18, 24, and 36 as previously recited are currently pending in the Application.

Claims 5,11,17,23, 29 and 35 have been cancelled by the amendment.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See In re Goodman, 1 1 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993)., In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA

Art Unit: 2814

1982)., /n re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970),and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the continuing application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim s 1-27 of U.S. Patent No. 6,706,568.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the only difference between the claims of the U.S. Patent No. 6,706,568 and applicants' present invention is that the present invention as claimed omits the step "forming an oxide film on a surface of the above semiconductor film". However it is noted that claims 1-27 of the 6,706,568 OBVIOUS over claims 1-36 of the instant application. E.g.

Claim 1 of 6,706,568 recites all steps of claim 1 of the instant application and Additionally it is an inherent property of the of third laser beam to posses a wavelength different from the first laser beam, because as the claims recite the energy density of

the third laser is higher than the energy density of the first laser . Similarly claims 2-36 are also anticipated by claims 1-27 of the 6,706,568 patent.

Applicants' have not provided any Statutory, Fed. Regulatory, MPEP or any other basis on which the double patenting rejection can be held in abeyance and therefore the Examiner cannot hold in abeyance and issue an Office Action, including therein a relif that is not authorized by the Statute, Fed. Reg., MPEP, etc.

Applicants' request to hold in abeyance the double patenting rejection is not persuasive also at least for the reason that Applicants' Have not amended any claims and if held in abeyance and because the same claims are rejected twice Applicants' choose to appeal then the double patenting issue may not be considered therefore the abeyance cannot be granted and the double patenting rejection is made Final.

Duplicate Claims Warning

Applicant is advised that should claims 7-12 be found allowable, claims 13- 18 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. It is noted that Applicants' contention that claim 7 and 13 are different because claim 7 recites, "radiating the semiconductor film with a second laser beam after radiating with the first laser beam under an atmosphere comprising one of hydrogen and an inert gas "while claim 13 recites, "radiating the semiconductor film with a third laser beam after radiating with the second laser beam under an atmosphere comprising one of hydrogen

Art Unit: 2814

and an inert gas " is not persuasive because the differences are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim See MPEP Section 706.03(k). (for arguments see section below).

Claim Rejections - 35 USC Section 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102 (e)).

Claim 1 is rejected under 35 U.S.C. 102 (e) as being anticipated by Nita et al. (U.S. Patent No. 6,304,329 herein after Nitta). (For response to Applicants' arguments see section below).

Art Unit: 2814

With respect to claim 1 Nitta describes a method for manufacturing a semiconductor device comprising'. forming a semiconductor film over an insulating surface (Nita col. 9 lines 2-3-SOI. Fig. 1 13 on 11) forming an oxide film on the semiconductor film (Nita col. 9 lines 26-33) radiating the semiconductor film with a first laser beam, (Nitta col. 12 line 63 # 52) radiating the semiconductor film with a Second laser beam after radiating with the first laser beam; (Nitta col. i 2 line 63 # 53) and radiating the semiconductor film with a third laser beam after radiating with the second laser beam, (Nitta col. 12 line 63 # 54) wherein a wavelength of the second laser beam (Lambda 2) and a wavelength of the third laser beam (Lambda 3) are different from a wavelength of the first laser beam (Lambda 1 Col. 12 lines 64-65, Lambda 1 = 1.55, Lambda 2 = 1.4 and Lambda 3 = 1.8).

With respect to claim 5 Nitta describes the method for manufacturing the semiconductor device according to Claim 1, wherein the method further comprises a step of forming an oxide film on the semiconductor film before radiating the semiconductor film with the first laser beam.

Claim Rejections - 35 USC Section 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the ad to which said

Art Unit: 2814

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

A. Claims 2-3,7-9, 11, 13-15, 17,25-28 and 31-33 are rejected under 35
U.S.C. 103(a) as being unpatentable over Nitta et al. (U.S. Patent No. 6,304,329, herein after Nitta) as applied to claims 1,5 above and further in view of Mitanaga et al. (U.S. Patent No. 5,808,321, herein after Mitanaga). (For response to Applicants' arguments see section below).

With respect to claim 2 Nitta describes the method for manufacturing the semiconductor device according to Claim 1, wherein the radiating the semiconductor film with the first laser beam is to form a crystallized semiconductor film.

Nitta describes the semiconductor device of claim 1, but does not specifically mention its laser treatment is for the purpose of forming a crystallized semiconductor film.

It is noted that the functional recitation, "wherein the radiating the semiconductor film with the first laser beam is held in order to form a crystallized semiconductor film" has not be given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC Section 1 12, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Fuller, 1929 C.D. 172, 388 O.G. 279. However, assuming arguendo that Applicants' have recited the limitation in proper format, Mitanaga a patent from the same filed of endeavor, describes in col. 1

Page 8

Art Unit: 2814

lines 20-25, 45-47 etc. describe wherein the radiating the semiconductor film with the first laser beam is held in order to form a crystallized semiconductor film, to crystallize the film at low temperature so as to avoid substrate deformation and reduce the heating time from several ten hours or more necessary for crystallization to about an hour and produce a product having the desired properties.

Therefore it would have obvious to one of ordinary skill in the art at the time of the invention to use Mitanaga's laser annealing in Nitta's method. The motivation for which is to crystallize the film at low temperature so as to avoid substrate deformation and reduce the heating time from several ten hours or more necessary for crystallization to about an hour and produce a product having the desired properties. (Mitanaga col. 2 lines 10-18 ,etc.).

With respect to claim 3 Nitta describes the method for manufacturing the semiconductor device according to Claim 1, wherein the radiating the semiconductor film with the second laser beam removes the oxide film on the semiconductor film. It is noted that the functional recitation, "wherein the radiating the semiconductor film with the second laser beam removes the oxide film on the semiconductor film" has not be given patentable weight because it is narrative in form.

See above under claim 2 In re Fuller, 1929 C.D. 172, 388 O.G. 279.

However, assuming arguendo that Applicants' have recited the limitation in proper format (Mitanaga it is a naturally occurring phenomena when annealing by laser (i.e. heating) oxides are chemically reduced and converted to other chemicals i.e. eliminated).

Art Unit: 2814

With respect to claim 7 Nitta describes a method for manufacturing a semiconductor device comprising. forming a semiconductor film over an insulating surface; forming an oxide film on the semiconductor film and radiating the semiconductor film with a second laser beam after radiating with the first laser beam under an atmosphere comprising one of hydrogen and an inert gas, (Mitanaga col. 10 lines 30-35) and radiating the semiconductor film with a third laser beam after radiating with the second laser beam, wherein a wavelength of the second laser beam and a wavelength of the third laser beam are different from a wavelength of the first laser beam. (rest of the steps are rejected for reasons stated above under claim 1).

With respect to claim 8 Nitta describes the method for manufacturing the semiconductor device according to Claim 7, wherein the radiating the semiconductor film with the first laser beam forms a crystallized semiconductor. (rejected for reasons set out claim 2 above).

With respect to claim 9 Nitta describes the method for manufacturing the semiconductor device according to Claim 7, wherein the radiating the semiconductor film with the second laser beam removes the oxide film on the semiconductor film. (rejected for reasons set out under claim 3 above).

With respect to claim 13 Nitta describes a method for manufacturing a semiconductor device comprising'. forming a semiconductor film over an insulating surface forming an oxide film on the semiconductor film; radiating the semiconductor film with a first laser beam; radiating the semiconductor film with a second laser beam after radiating with the first laser beam; and radiating the semiconductor film with a third

Art Unit: 2814

laser beam after radiating with the second laser beam under an atmosphere comprising one of hydrogen and an inert gas, wherein a wavelength of the second laser beam and a wavelength of the third laser beam are different from a wavelength of the first laser beam. (rejected for same reasons as set out under claims 1 and 7 above). With respect to claim 14 Nitta describes the method for manufacturing the semiconductor device according to Claim 13, wherein the radiating the semiconductor film with the first laser beam forms a crystallized semiconductor film. (rejected for same reasons as set out under claim 2 above).

With respect to claim 15 Nitta describes the method for manufacturing the semiconductor device according to Claim 13, wherein the radiating the semiconductor film with the second laser beam removes the oxide film on the semiconductor film. (rejected for same reasons as set out under claim 3 above).

With respect to claim 25 Nitta describes a method for manufacturing a semiconductor device comprising. forming a semiconductor film over an insulating surface, forming an oxide film on the semiconductor film ,radiating the semiconductor film with a first laser beam; radiating the semiconductor film with a second laser beam after radiating with the first laser beam; and radiating the semiconductor film with a third laser beam after radiating with the second laser beam, wherein an energy of the third laser beam is higher than an energy of the first laser beam, and wherein a wavelength of the second laser beam and a wavelength of the third laser beam are different from a wavelength of the first laser beam. (Nitta example -1 ,col. 5 lines 35-45).

With respect to claim 26 Nitta describes the method for manufacturing the

Art Unit: 2814

semiconductor device according to Claim 25, wherein the radiating the semiconductor film with the first laser beam forms a crystallized semiconductor film.

With respect to claim 27 Nitta describes the method for manufacturing the semiconductor device according to Claim 25, wherein the radiating the semiconductor film with the second laser beam removes the oxide film on the semiconductor film. (rejected for reason set out under claim 2 above).

With respect to claim 28 Nitta describes the method for manufacturing the semiconductor device according to Claim 25, wherein the radiating the semiconductor film with the second laser beam levels a surface of the semiconductor film. (rejected for reason set out under claim 3 above).

With respect to claim 31 Nitta describes a method for manufacturing a semiconductor device comprising: forming a semiconductor film over an insulating surface; forming an oxide film on semiconductor film, crystallizing the semiconductor film by a heat treatment to form a crystallized semiconductor film, radiating the crystallized semiconductor film with a first laser beam; radiating the crystallized semiconductor film with a second laser beam after radiating with the first laser beam; and radiating the crystallized radiating with the second laser beam, semiconductor film with a third laser beam after wherein a wavelength of the second laser beam and a wavelength of the third laser beam are different from a wavelength of the first laser beam. (rejected for reason set out under claims 1,7, etc. above).

With respect to claim 32 Nitta describes the method for manufacturing the semiconductor device according to Claim 31, wherein the radiating the crystallized

Art Unit: 2814

semiconductor film with the first laser beam improves a crystal characteristic of the crystallized semiconductor film.(claim 2)

With respect to claim 33 Nitta describes the method for manufacturing the semiconductor device according to Claim 31, wherein the radiating the crystallized semiconductor film with the second laser beam removes the oxide film on the crystallized semiconductor film. (claim 3).

B. Claims 4,6, 10, 12, 16, 18-24, 29-30, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta et al. (U.S. Patent No. 6,304,329, herein after Nitta) and in view of Mitanaga et al. (U.S. Patent No. 5,808,321, herein after Mitanaga) as applied to claims 2-3,6 et. and further in view of Ouderkrik et al. (U.S. Patent No. 4,879,176 herein after Ouderkrik).

With respect to claim 4, Nitta describes the method for manufacturing the semiconductor device according to Claim 1, wherein the radiating the semiconductor film with the second laser beam levels a surface of the semiconductor film.

It is noted that the functional recitation, "wherein the radiating the semiconductor film with the second laser beam levels a surface of the semiconductor film" has not be given patentable weight because it is narrative in form. See above under claim 2 In re Fuller, 1929 C.D. 172, 388 O.G. 279.

Nitta and Mitanaga do not specifically describe the step of wherein the radiating the semiconductor film with the second laser beam levels a surface of the semiconductor film.

However, assuming arguendo that Applicants' have recited the limitation in proper format Ouderkrik, a patent from the same field of endeavor describes in Col. 5 lines 38-64, etc. the step of wherein the radiating the semiconductor film with the second laser beam is held in order to level a surface of the semiconductor film to form a semiconductor device with reduced optical reflectance, increased optical transmission, increased coating adhesion, a non-yellowed (non-degraded) surface, and a non textured surface.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Ouderkrik's step of wherein the radiating the semiconductor film with the second laser beam is held in order to leve! a surface of the semiconductor film In Nitta and Mitanaga"s method. The motivation to arrive at the above combination is to form a semiconductor device with reduced optical reflectance, increased optical transmission, increased coating adhesion, a non-yellowed (non-degraded) surface, and a non textured surface. (Ouderkrik col.4 lines 54-58, etc.).

With respect to claim 6 Nitta describes the method for manufacturing the semiconductor device according to Claim 1, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (Mitanaga Col. 12 lines 13-15, see also Ouderkrik col. 3 lines 25-30 example 5, etc.).

With respect to claim 10 Nitta describes the method for manufacturing the semiconductor device according to Claim 7, wherein the radiating the semiconductor film with the second laser beam is held in order to level a surface of the semiconductor film. (rejected for reasons et out under claim 4 above).

With respect to claim 12 Nitta describes the method for manufacturing the semiconductor device according to Claim 7, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (rejected for reasons set out under claim 6 above). With respect to claim 16 Nitta describes the method for manufacturing the semiconductor device according to Claim 13, wherein the radiating the semiconductor film with the second laser beam is held in order to level a surface of the semiconductor film. . (rejected for same reasons as set out under claim 4 above).

With respect to claim 18 Nitta describes the method for manufacturing the semiconductor device according to Claim 13, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (rejected for same reasons as set out under claim 6 above).

With respect to claim 19 Nitta describes a method for manufacturing a semiconductor device comprising forming a semiconductor film over an insulating surface, radiating the semiconductor film with a first laser beam; radiating the semiconductor film with a second laser beam after radiating with first laser beam and radiating the semiconductor film with a third laser beam after radiating with the second laser beam, wherein a pulse width of the second laser beam is smaller than a pulse width of the first laser beam (Ouderkrik example 10) and wherein a wavelength of the second laser beam and a wavelength of the third laser beam are different from a wavelength of the first laser beam. (rest of the limitations rejected for reasons set out under claims 1,7 etc.).

Art Unit: 2814

With respect to claim 20 Nitta describes the method for manufacturing the semiconductor device according to Claim 19, wherein the radiating the semiconductor film with the first laser beam is held in order to form a crystallized semiconductor film. (rejected for reasons set out under claim 2 above).

With respect to claim 21 Nitta describes the method for manufacturing the semiconductor device according to Claim 19, wherein the radiating the semiconductor film with the second laser beam is held in order to eliminate an oxide film on the semiconductor film. radiating the semiconductor film with a second laser beam after radiating with the first laser beam. (rejected for reasons set out under claim 3 above). With respect to claim 22 Nitta describes the method for manufacturing the semiconductor device according to Claim 19, wherein the radiating the semiconductor film with the second laser beam is held in order to level a surface of the semiconductor film. (rejected for reasons set out under claim 4 above).

With respect to claim 23 Nitta describes the method for manufacturing the semiconductor device according to Claim 19, wherein the method further comprises a step of forming an oxide film on the semiconductor film before radiating the semiconductor film with the first laser beam. (rejected for reasons set out under claim 5 above).

With respect to claim 24 Nitta describes the method for manufacturing the semiconductor device according to Claim 19, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (rejected for reasons set out under claim 6 above).

Art Unit: 2814

With respect to claim 29 Nitta describes the method for manufacturing the semiconductor device according to Claim 25, wherein the method fudher comprises a step of forming an oxide film on the semiconductor film before radiating the semiconductor film with the first laser beam. (rejected for reason set out under claim 5 above).

With respect to claim 30 describes the method for manufacturing the semiconductor device according to Claim 25, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (rejected for reason set out under claim 6 above). With respect to claim 34 Nitta describes the method for manufacturing the semiconductor device according to Claim 31, wherein the radiating the crystallized semiconductor film with the second laser beam is held in order to level a surface of the crystallized semiconductor film. (claim 4)

With respect to claim 35 Nitta describes the method for manufacturing the semiconductor device according to Clam 31, wherein the method further comprises a step of forming an oxide film on the crystallized semiconductor film before radiating the crystallized semiconductor film with the first laser beam. (claim 5).

With respect to claim 36 Nitta describes the method for manufacturing the semiconductor device according to Claim 31, wherein an energy density of the first laser beam is 300 to 500mJ/cm. (claim 6).

Response to Arguments

Applicant's arguments filed on November 23, 2005 have been fully considered but they are not persuasive for the following reasons:

Applicants' first contention that the Obiviousness type double patenting rejection under the judicially created doctrine is traversed because allegedly the claims of the "568 patent do not recite " a wave length of the third laser beam is different from that of the first laser beam " is not persuasive because_ it is an inherent property of the of third laser beam to posses a wavelength different from the first laser beam, because as the claims recite the energy density of the third laser is higher than the energy density of the first laser. Similarly claims 2-36 are also anticipated by claims 1-27 of the 6,706,568 patent.

Applicants' second contention to hold the double patenting rejection in abeyance is also not persuasive for the following reasons.

Applicants' have not provided any Statutory, Fed. Regulatory, MPEP or any other basis on which the double patenting rejection can be held in abeyance and therefore the Examiner cannot hold in abeyance and issue an Office Action, including therein a relif that is not authorized by the Statute, Fed. Reg., MPEP, etc.

Applicants' request to hold in abeyance the double patenting rejection is not persuasive also at least for the reason that Applicants' Have not amended any claims and if held in abeyance and because the same claims are rejected twice Applicants' choose to appeal then the double patenting issue may not be considered therefore the abeyance cannot be granted and the double patenting rejection is made Final.

Applicants' arguments with regard to the 112 rejection are moot in view of Applicants' amendment and subsequent withdrawal of this rejection.

Page 18

Art Unit: 2814

Applicants' contention that claims 7 and 13 are not duplicate of one another misses the point that under the standard of else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. It is noted that Applicants' contention that claim 7 and 13 are different because claim 7 recites, "radiating the semiconductor film with a second laser beam after radiating with the first laser beam under an atmosphere comprising one of hydrogen and an inert gas "while claim 13 recites, "radiating the semiconductor film with a third laser beam after radiating with the second laser beam under an atmosphere comprising one of hydrogen and an inert gas " is not persuasive because the differences are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim See MPEP Section 706.03(k). (for arguments see section below).

Therefore Applicants' this contention is also not persuasive.

Applicants' next contention that they have amended the claims to improve clarity and active voice and therefore the functional limitations must be given patentable weight is not persuasive because these limitations are still functional limitations in device claims even tough they are now allegedly recited in active voice instead of passive voice, further the verbs e.g. claim 2 removes instead of eliminate, claim 3 levels instead of level are still in narrative form.

Therefore Applicants' this contention is also not persuasive.

Applicants' next contention that the applied Nitta reference does not disclose radiating the semiconductor film with laser beams because Nitta's elements' 52,53 and 54 are laser diodes provided in order to detect angular velocity o# the other object.. " is also not persuasive because Applicants'/attorneys' have considered the teachings at col. 8 lines 5 to 12 of Nitta which describe that (prior art to Nita) methods of using semiconductor laser for growing crystals by radiating laser beam on the semiconductor. to crystallize the crystal is the same as Applicant's description in thier specification.

Further Applicants have not understood the cited portion wherein in alternative embodiments the elements 52,53 and 54 also include single/multiple quantum wells (col. 8 lines 54-57) and further describe in an embodiment in col. 6 lines describes treatment where in laser is incident upon the semiconductor layer.

Further proof of laser beam being projected is col. 9 lines 26-34 which describe insulating films are formed in side surface to contain light (laser) from exiting and provide total internal reflection and prevent the semiconductor laser from deteriorating.

Applicants' next contention that the applied Nita reference does not disclose/teach the steps of forming a semiconductor film over an insulating surface, (as stated in the rejection above -Nita col.9 lines 2-3-SOI. Fig.1 313 on 11) radiating the semiconductor film with a first laser beam (as stated in the rejection above -Nita col. 12 line 63 # 52) forming an oxide film (Nita col. 9 lines 26-33) , etc.

Therefore all the presently recites steps in claim 1 are taught by Nita.

Art Unit: 2814

Applicants' contention that the 103 rejection of claims 2,3,7-9,11,13-15,17,25-28 and 31-33 and claims 7,13,19,25 and 31 were alleged to be allowable for the same reasons set out under claim 1 above.

However as seen above the reasons under claim 1 are not persuasive, therefore the same reasons are not persuasive for claims 2,3,7-9,11,13-15,17,25-28 and 31-33 and claims 7,13,19,25 and 31 also.

Similarly the arguments for claims 4,6,10,12,16,18-24, 29-30 and 34-36 also not persuasive.

Therefore considering that proper combination of the applied references along with proper motivation/ suggestion and reasonable expectation of success has been established beyond a shadow of doubt and if Applicants' dispute this they must provide concrete evidence and not mere conclusionary statements without any support.

Applicants' are reminded that 37 CFR Section 1.111 (b) states, "A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes tem from the references does not comply with the requirements of this section".

Applicant has failed to specifically point out how the language of the claims patentably distinguishes them from the references.

Therefore all of Applicants' arguments are not persuasive or insufficient because of their failure to specifically point out how the language of the claims patentably distinguishes them from the references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is (571)272-1718. The examiner can normally be reached on 8.00 to 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fahmy Wael can be reached on (571) 272-1714. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven H. Rao

Patent Examiner

August 09, 2006.